# IN REPLY REFER TO 1790 (OR-118)

#### **United States Department of the Interior**

BUREAU OF LAND MANAGEMENT Glendale Resource Area 2164 N.E. Spalding Grants Pass, Oregon 97526

JUL 0 2 2008

#### Dear Interested Party:

Attached for your review and comment is a Project Scoping Report for the proposed Wolf Pup Timber Sale located on the Glendale Resource Area, Medford District, Bureau of Land Management (BLM). This report summarizes a proposal to treat approximately 2,047 acres of forest land by commercial thinning, regeneration harvesting, overstory removal, and shelterwood cutting including associated actions such as road construction and road maintenance. Slash created in harvested areas would receive activity fuel treatments. See Chapter 2 (2.1.1 Description of Forest Management Treatments) of this scoping report for a further description of activities. This report also includes a description of the project location, purpose and need for action, decision to be made, and proposed action.

The Medford District BLM has already completed an Environmental Impact Statement (EIS) for the Resource Management Plan (RMP), known as the 1995 Medford District Resource Management Plan/Environmental Impact Statement. The RMP is itself an implementation of the Northwest Forest Plan (NWFP) which was also prepared by federal agencies, including the BLM. These EISs, and the corresponding Record of Decisions (RODs), specifically contemplated the ecological significance of the areas in which commercial and non-commercial timber harvest activities would be planned. The National Environmental Policy Act (NEPA) document that BLM would prepare for this proposed project would tier to analysis of project impacts already contained in these programmatic EISs.

The ultimate purpose of completing a NEPA document for this project is to allow the Field Manager to make choices between management options (alternatives) for the locations identified by the interdisciplinary team (IDT) as needing treatment. We are inviting you to participate in the planning of this project by identifying resource concerns and objectives that the IDT has not already identified, and that have not already been analyzed in the RMP and NWFP. These projects do not provide an opportunity to re-visit landscape-wide decisions that were made in the NWFP and RMP, such as whether to harvest old-growth trees, whether to allow commercial timber harvest of these lands, or whether to use timber harvest in general, to achieve landscape management objectives. Rather, helpful comments will assist me by identifying those concerns not previously considered that you feel are important, and explanation of why you believe those concerns are relevant to my ultimate decision on how to carry out the selected management options for the locations identified.

I encourage you to provide comments in writing regarding the proposed project on or before August 8, 2008 to me at 2164 NE Spalding Avenue, Grants Pass, Oregon 97526. Comments received in response to this letter will be used by the IDT to determine the scope (breadth and depth) of the environmental analysis.

Comments, including names and addresses of those who comment, will be considered part of the public record on this proposed action and will be available for public inspection. Also, names of those who comment may be published as part of the environmental analysis document. Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials or organizations or businesses, will be made available for public inspection in their entirety.

For additional information concerning this proposed project contact Michelle Calvert at 2164 NE Spalding Avenue, Grants Pass, Oregon 97526 or phone (541) 471-6505.

Sincerely.

Katrina Symons

Field Manager

Glendale Resource Area

#### **Enclosures:**

1-Wolf Pup Timber Sale Scoping Report (23 pp)

1-Wolf Pup Timber Sale Scoping Report Map: Alternative 2 (1 pp)

#### WOLF PUP TIMBER SALE PROJECT SCOPING REPORT

#### 1.1 Proposed Action

The Proposed Action (Alternative 2) includes harvesting timber on approximately 2,047 acres of forest land by the general prescription of modified even-aged silvicultural methods. Cut trees would be removed by the use of tractor, skyline cable or helicopter yarding methods. To facilitate the transport of logs there would be road maintenance, 3.2 miles of permanent road and temporary route construction, 2.8 miles of road reconstruction, and quarry use.

Residual limbs and branches left on the ground after harvesting would be treated by either slashing, hand-piling, pile-burning, underburning, and/or lop-and-scatter methods to reduce the fuel loading and to prepare the site for planting of conifer seedlings. Units would be planted, where necessary, to ensure adequate stocking as required by the Federal Land Policy and Management Act (FLPMA).

The majority of the proposed harvest units are within lands governed by the Oregon and California (O&C) Lands Act. Fifteen harvest units are within Public Domain Lands. Harvesting and associated forest management activities are planned to start in 2009. BLM planning decisions and harvest activities would apply only to BLM-administered O&C and Public Domain lands.

#### 1.3 Project Location

The Planning Area (PA) is located just west of the community of Wolf Creek, 1 mile south of the community of Glendale, and approximately 2 miles west of Interstate 5. The PA is contained within the boundaries of the Hydrologic Unit Condition (HUC) 6, Wolf Creek sub-watershed, which flows into the larger 104,371 acre Grave Creek HUC 5 watershed.

The BLM manages approximately 5,691 acres of the 10,671 acre PA, which is a checkerboard pattern of public and private ownerships. Of the 5,691 acres of BLM lands, approximately 5,187 acres are O&C Lands, and the remaining 504 acres are Public Domain Lands governed by FLPMA. The Planning Area also contains Northern Spotted Owl Critical Habitat (CHU) OR#64. The legal description of the PA is Township (T) T.33S., R.7W., Sections 13, 14, 23, 25, 27, 34, 35; T.33S., R.6W., Sections 17, 19, 29, 31; T.34S., R.7W., Sections 1&3 in Josephine County, Willamette Meridian.

The PA includes the land allocations of matrix and riparian reserves. The Medford District Record of Decision and Resource Management Plan (ROD/RMP) has allocated approximately 22 percent of the Medford District's landbase to the matrix land use allocation (RMP, p. 72). Matrix lands within the Wolf Pup PA are separated into northern General Forest Management Areas (NGFMA) and Connectivity/Diversity Blocks. Connectivity/Diversity Blocks vary in size and are distributed throughout the NGFMA. Riparian reserves occur across all land use allocations and estimated to include

43% of the landbase. This percentage is based on prescribed riparian reserve widths and estimated miles of streams within all of the various land use allocations.

#### 1.4 Purpose and Need for the Proposal

#### 1.4.1 Need for Action

The BLM has a statutory obligation under FLPMA which directs that "[t]he Secretary shall manage the public lands . . . in accordance with the land use plans developed by him under section 202 of this Act when they are available . . ." The Medford District's Record of Decision and Resource Management Plan (ROD/RMP, June 1995) guides and directs management on BLM lands.

One of the primary objectives identified in the RMP is implementing the O & C Lands Act which requires the Secretary of the Interior to manage O&C lands for permanent forest production in accord with sustained yield principles (ROD/RMP, p.17).

For sustained yield the Medford ROD/RMP assumed an average annual harvest of 1,140 acres of regeneration harvest and overstory removal the first decade (ROD/RMP, p. 9). For fiscal year 2006, the District offered 30.1 million board feet (MMBF), 27 MMBF short of the annual 57.1 MMBF Allowable Sale Quantity (ASQ) due to a number of legal challenges affecting western Oregon (Medford District Bureau of Land Management Annual Program Summary and Monitoring Report for Fiscal Year 2006, p.28). The RMP identified regeneration and overstory removal as the primary method of harvest on NGFMA lands (RMP, p 187). Commercial thinning is not a sustainable method of harvest but produces timber and is appropriate where stands are overstocked and to assure high levels of volume productivity.

The need for harvest treatments in the Wolf Pup PA is to meet the NGFMA direction in the Medford RMP/ROD of providing a sustainable supply of timber that would trend toward a forest composed of stands representing a variety of structures, ages, sizes, and canopy configurations generally through the even-aged management silvicultural system (ROD/RMP, p. 187). Where appropriate the modified regeneration silvicultural treatments would occur at a minimum 100 years of age (ROD/RMP, p. 74).

The Grave Creek Watershed Analysis (WA, p. 60) estimated that 56% of NGFMA lands within this area are mature and older stands. Approximately 16% of the older stands are over 200 years of age. Individual stands currently have an all aged structure developed as a result of past disturbances such as natural fire or partial cut harvesting.

#### 1.4.2 Purpose (Objectives) for Action

Any action alternative to be given serious consideration as a reasonable alternative must meet the objectives provided in the RMP for projects to be implemented in the Planning Area. The RMP and statutes specify the following objectives to be accomplished in managing the lands in the Planning Area:

- 1. Produce a sustainable supply of timber and other forest commodities on matrix lands to provide jobs and contribute to community stability (RMP, p. 38) by
  - applying modified regeneration silvicultural treatments at a minimum of 100 years of age (RMP, p. 74). This age level is sustainable and would meet economic and logging-practicality requirements. Over time rotation lengths would approach the age of culmination of mean annual increment (CMAI). For most regimes and sites in southwestern Oregon, CMAI occurs near 100 years of age (RMP, p.181). In order to manage these lands in accordance with the principle of sustained yield, stands which exceed the minimum harvest age are due for harvest designed for regeneration of a new stand of timber.

The Grave Creek Watershed Analysis noted that the long-term landscape design would be a "mosaic of stands between 0 and 100 years old, distributed relatively evenly within the watershed, with each age class in approximately even proportions" (p. 93);

- applying commercial thinnings would be designed to assure high levels of volume productivity in stands less than 120 years of age (RMP, p. 189).
- 2. Reduce both natural and activity based fuel hazards through methods such as prescribed burning, mechanical or manual manipulation of forest vegetation and debris, removal of forest vegetation and debris, and combinations of these methods (RMP, p. 91).
- 3. Manage riparian reserves to restore and maintain the ecological health of watersheds and aquatic ecosystems by
  - controlling stocking, re-establish and manage stands, and acquire desired vegetation characteristics needed to attain Aquatic Conservation Strategy and riparian reserve objectives (RMP, p. 27);
- 4. Ensure project activities are consistent with existing right-of-way agreements.

#### 1.5 Decisions to be Made

The Glendale Field Manager is the official responsible for deciding whether or not to prepare an Environmental Impact Statement (EIS), and whether to approve the treatments as proposed, not at all, or to some other extent.

#### **Alternative Decision Factors**

In choosing the alternative that best meets the purpose and need, the Glendale Field Manager would evaluate alternatives on:

- silvicultural systems that are sustainable, economically practical, and capable of maintaining the long-term health and productivity of the forest ecosystem;
- providing timber resources and revenue to the government from the sale of those resources;
- providing for the establishment and growth of conifer species while retaining structural and habitat components, such as large trees, snags, and coarse woody debris;
- reducing activity based fuel hazards;
- comply with existing right-of-way agreements.

## Chapter 2.0 Alternative Ways of Accomplishing the Objectives

#### 2.1 Proposed Projects

#### 2.1.1 Description of Forest Management Treatments

**Regeneration Harvest (RH).** Timber harvest method would open a forest stand to the point where favored tree species would be established (RMP/ROD, p. 111).

Regeneration harvesting would occur on mature stands of trees generally over 100 years of age and would replace older, slowing growing stands with young more vigorously growing stands. Commercial timber would be removed while a component of snags, down wood, hardwoods, and overstory legacy trees would be retained.

Within northern (GFMA) General Forest Management Areas, at least 6-8 green conifer trees per acre would be retained. These larger retained conifers would proportionally represent the total range of tree size classes greater than 20 inches in diameter and would represent all conifer species present. Where large hardwood trees are present a minimum of 2 of these hardwoods per acre would also be retained (RMP, p. 188). For stands within Connectivity/Diversity blocks, 25-30 percent of each block would be maintained in late-successional forest condition and 12-18 green conifer trees per acre would be retained (RMP. p. 40). The RH units would be burned, if necessary, to prepare the site and then planted.

Overstory Removal (OR). A form of the regeneration harvest method. Harvesting occurs as the final stage of cutting where a portion of the remaining overstory trees are removed to allow the understory to grow (RMP/ROD, p. 110).

The primary objective of this treatment is similar to regeneration harvest. It is to replace existing older mature stands with ones of vigorous growing younger conifers. This method of harvest is appropriate in stands where there is a mature overstory component and a younger more vigorous understory. Overstory removal emphasizes the retention of healthy existing conifer regeneration after most of the overstory trees are removed. Retained trees would meet the RMP requirement for green tree retention (6-8 trees/acre). Where large hardwood trees are present a minimum of 2 of these harwoods per acre would also be retained (RMP, p. 188). Existing conifer regeneration would become part of the next managed stand. Overstory removal units would be evaluated after harvest. Site preparation and planting would be done as needed to meet stocking standards.

**Shelterwood Cutting (SC).** A form of the regeneration harvest method under an evenaged silvicultural system. A portion of the mature stand is retained as source of seed and/or protection during the regeneration period (RMP/ROD, p.113).

Overstory trees would be retained (in addition to desired living trees and dead structural snags) until understory conifers are large enough to become established and then removed in one or more subsequent entries once regeneration trees become established (approximately 3-5 years from the initial entry) (RMP/ROD, p.182).

**Commercial Thinning (CT).** Commercial thinning is the removal of merchantable trees to encourage growth of the remaining trees (ROD/RMP, p. 103).

Commercial thinning is an intermediate treatment prior to regeneration harvest. It is a silvicultural practice generally applied to control stand density, maintain stand vigor, and place or maintain stands on developmental paths so that desired stand characteristics result in the future while providing an entry that is economical (RMP, p. 185). This treatment would promote better stand health, as well as increased vigor and better crown development on retained trees. Fewer, larger trees would make up these stands in the long term and overall stand health would be improved. Production of some wood volume at the present time and an increase/maintenance of growth rates for wood volume production in the future are primary objectives.

**Riparian Thinning.** The objective of riparian thinning treatments is to create a stand that is on a trajectory to reach a late-successional condition.

Many of these areas are dominated by smaller diameter stands of Douglas-fir and some hardwoods. Most stands are lacking large wood debris, downed logs, and large tree structure. The treatment would reduce competition on the retained trees for light, nutrients, water and growing space. These trees would develop larger canopies, display better vigor and put on diameter growth faster then if left untreated. Canopy gaps would also be created in these zones to promote multiple-layered stands and promote species diversity that is a key element in late-successional habitat. Production of wood volume is a bi-product of this treatment, but is not a primary objective.

Riparian thinning would be done within riparian reserves adjacent to commercial thinning and pre-commercial thinning units throughout this Planning Area to improve stand health and species diversity, and to reduce the existing fire hazard. Riparian areas proposed for treatment were selected based on the high density and young age (20-80 years) of the stand, or as a result of existing disease pockets or unnaturally low species diversity. Treatments would occur in accordance with the following prescriptions to ensure protection of streams while restoring stand health.

On all units, a minimum 25 foot no treatment buffer, from bankfull width, would be used to protect streambank stability. Studies have shown that "vegetation immediately adjacent to the stream channel is most important in maintaining bank integrity" (FEMAT 1993). Twenty-five feet is roughly equal to the largest crown width that is generally

present on trees occurring within riparian stands that have been chosen for treatment under this project. For Douglas-fir trees typical of these stands, crown width generally relates to the extent of the root network (Kocher) that is helping to stabilize the streambanks. In addition to the stabilizing effect of the root network, adjacent trees also dissipate stream energy during high or overbank flows, further reducing bank erosion (FEMAT 1993).

Where treatments occur between 25-60 feet of the stream, angular canopy density would remain close to existing levels to protect stream shading. A 60 foot buffer was found to protect nearly all shade characteristics necessary to maintain or improve stream temperatures (NFP Temperature TMDL Implementation Strategies, US Forest Service and BLM, 2005). Understory trees, which are not providing shade, would be treated within this buffer to reduce fire hazard and to improve the vigor of the remaining overstory trees by increasing available growing space, water, and nutrients.

Between 60 and 160 feet wide, measured from the stream channel, a variable width buffer would be used that is based on the Ecological Protection Width Needs chart (ROD, B-15). This chart is based on slope and rock type, and takes into account protection of streams from "surface erosion of streamside slopes, fluvial erosion of the stream channel, soil productivity, habitat for riparian-dependent species, the ability of streams to transmit damage downstream, and the role of streams in the distribution of large wood to downstream fish bearing waters" (B-15, Standards and Guidelines). Within this buffer zone forest health treatments would occur. Canopy closure within this zone would remain above 50%, species diversity would be maintained, and all naturally occurring or felled course and large woody debris would be left on site. These treatments would used to increase stand productivity and diversity and to reduce fire hazard. No treatments within this zone would use ground disturbing yarding activities to remove logs ors excess biomass. Studies by Emmingham et al (2002) and others have shown a 50% canopy closure is sufficient to maintain microclimate conditions within the riparian zone in the long term, without measurably increasing stream temperatures in the short or long term.

Treatments within the riparian zone that are outside the variable width ecological protection zone would be done to promote forest health as discussed above. Canopy closures would remain above 40%, and species diversity would be maintained. Forty percent was selected because it was considered by the silviculturist to be the maximum canopy closure that should remain on some sites to provide enough spacing and sunlight to promote tree growth. Projects within this area would be designed to ensure that habitat conditions for the wildlife and plant species that use this zone are not degraded.

Within regeneration harvest and overstory removal units, full NWFP designated riparian reserve buffers would be used (one to two site potential trees). Within these units most riparian reserves are currently on a trajectory toward late successional stand conditions, and therefore not in need of forest health treatments. These buffers would be used as an ecological reserve for plants and animals which are present within timber harvest units. Along perennial and intermittent streams this buffer would be equal to one site potential tree, and two site potential tree lengths along fish streams and all streams that could

potentially bear fish based on habitat conditions and accessibility.

Activity fuel treatments. For activity slash created from timber harvesting, fuel reduction treatments include slashing, hand-piling, pile-burning, underburning, and/or lop-and-scatter. The lop-and-scatter method would be used on cut material up to 7 inches in diameter. This method is normally used when there is very little treatment needed within a unit. Areas that pose an increased fire hazard due to residual slash would be hand-piled and burned rather than receive a lop-and-scatter treatment. Appropriate treatments depend on the amount of slash created and would therefore be determined by an assessment of the post-activity condition of each unit.

*Temporary Route Construction* would allow operator access to harvest units. After harvest is complete, the routes would be decommissioned.

**Permanent Road Construction** would include clearing, grubbing and pioneering of a new road template and would allow the BLM future access to proposed harvest units.

**Road Renovation** would restore a road to its original condition.

**Road Maintenance** would keep a facility (road) in such a condition that it may be continuously utilized at its original or designed capacity and efficiency, and for its intended purposes.

#### 2.3 Project Design Features

Project design features (PDFs) are specific measures included in the site specific design of Alternative 2 to eliminate or minimize adverse impacts on the human environment. These PDFs were developed by the Wolf Pup Timber Sale Project interdisciplinary team from guidance of Best Management Practices (BMPs) identified in the Medford District ROD/RMP, Appendix D, and resource protection measures specific to the Planning Area.

#### 2.3.1 Soil Productivity, Residual Trees and Coarse Woody Debris

- Lateral yarding would be required on all units to protect residual leave trees and existing conifer regeneration. Yarding carriages would be required to maintain a fixed position during lateral yarding to reduce damage to the residual stand.
- Whole tree yarding would be allowed. If unacceptable damage occurs to soils or from bark slippage, girdling, broken tops, or damage to live crowns; trees would be bucked and limbed as determined and directed by the Authorized Officer.
- Yarding would be completed within one month of falling in overstory removal harvest units to minimize damage to conifer regeneration or as approved by the Authorized Officer.

- Directional falling toward the lead would be required to minimize damage to residual (reserve) trees.
- In overstory removal harvest units, trees would be felled away from residual conifer regeneration, where possible.

#### 2.3.2 Fire/Fuels

- Prescribed fire plans are prepared for all burning activities. The plans are
  designed to ensure that resource and fire management objectives are met by
  setting parameters under which the burning may take pace. Prescribed burning
  would be conducted in a manner that would minimize damage to reserve trees,
  duff, and soil, and to avoid loss of large, coarse woody debris.
- Prescribed burning would occur as early in the fall/winter season after one or more inches of precipitation have occurred to reduce the potential for fire spread and scorch and mortality to the residual trees and shrubs. Patrol and mop-up of burning piles would occur when needed to prevent fire escape.
- Landing piles would be burned, if necessary, on all harvest units.
- Prior to the winter season, residual material would be removed on the running surface of roadways, including turnouts, ditchlines, and shoulders.

#### 2.3.3 Air Quality / Smoke Management

• All prescribed burning would be managed in a manner consistent with the requirements of the Oregon Smoke Management Plan administered by the Oregon Department of Forestry and the regulations established by the Air Quality Division of the Oregon Department of Environmental Quality.

#### 2.3.4 Cultural Sites

- All archaeological sites located within the Project Area would be protected using a 25 foot no treatment buffer.
- If any archaeological or historical artifacts are uncovered during project implementation, they would be left intact and undisturbed. All work in the Project Area would stop immediately and the resource area archeologists would be notified. The project may be redesigned to protect the cultural resource values present, or evaluation and mitigation procedures would be implemented based on recommendations from the resource area archaeologist and concurrence by the Glendale Field Manager and State Historic Preservation Office.

#### 2.3.5 Noxious Weeds

- The operator would be required to clean all logging construction, rock crushing, and transportation equipment prior to entry on BLM lands to prevent the potential spread of noxious weeds into the Medford District BLM.
- Cleaning is defined as removal of dirt, grease, plant parts, and material that may carry noxious weed seeds and plant parts into BLM lands. Cleaning prior to entry onto BLM lands may be accomplished by using a pressure hose.
- Only logging and construction equipment inspected by the BLM would be allowed to operate within the Planning Area, or in the immediate vicinity of the Planning Area. All subsequent move-ins of logging and construction equipment would be treated the same as the initial move-in.
- Prior to initial move-in of any logging or construction equipment, and all subsequent move-ins, the operator would make the equipment available for BLM inspection at an agreed upon location off federal lands.
- Logging and construction equipment would be visually inspected by the Authorized Officer to verify that the equipment has been cleaned.
- Native grass/forb seeding would be used on disturbed areas, including: road and
  route construction and decommissioning, skid trails, corridor rehabilitation, and
  landings outside the road prism, to minimize the introduction of noxious weeds.

#### 2.3.6 Streams and Riparian Zones

Wolf Pup Timber Sale Project Scoping Report

- The NWFP Riparian Reserve boundary for this watershed is one site potential tree along perennial and intermittent streams and a two site potential trees along fishbearing streams.
- On all units, a minimum 25 foot no treatment buffer, from bankfull width, would be used to protect streambank stability.
- Within the Ecological Protection Zone (EPZ) angular canopy density (overstory) would remain within 5% of existing levels. Only fuels treatments, and young stand management activities that do not use ground disturbing yarding systems would be allowed in the EPZ.
- All large woody debris and existing coarse woody debris would be left on site.
- All trees harvested within NWFP Riparian Reserve boundaries would be directionally felled away from the EPZ unless unsafe.

- Trees or portions of trees less than 7 inches in diameter in no-harvest portions of Riparian Reserves that are inadvertently knocked over during falling and yarding would be treated with activity fuels. Trees or portions of trees equal to or greater than 7 inches in diameter would be retained on site for fish /wildlife habitat.
- Within the NWFP Riparian Reserve boundary but outside the EPZ, canopy closure would remain above 40% and yarding corridors within this area with exposed mineral soil would be waterbarred, planted with native seed, mulched or a dense layer of small woody debris would be applied, as necessary to minimize erosion. Species diversity would be maintained within the entire NWFP Riparian Reserve boundary.
- "Rehabilitation" includes discontinuously subsoiling, mulching, and seeding and installing water bars prior to October 15<sup>th</sup>. This date may be extended in writing by the Authorized Officer if dry conditions exist, dry weather is forecasted for the entire extension period, and actions can be completed prior to end of the extension. For all subsoiling, winged ripper teeth would be used to subsoil the full width of the skid trail, rips would be no more than 36 inches apart, and would be to a depth of 18 inches or to bedrock, whichever is shallower. Water bars would be installed at the same time as subsoiling. Equipment must accomplish these requirements and avoid driving back over subsoiled areas. This method of rehabilitation is also to be applied to skid trails, landings, and temporary routes following harvest.
- Between September 15 and July 1, no in-stream work associated with cleaning culvert inlets, culvert replacement or removal would be occur in accordance with Oregon Department of Fish and Wildlife (ODFW) in-stream work period recommendations, except where the potential for greater damage to water quality and fish habitats exists.
- Flowing water would be diverted around each culvert replacement site whenever there is sufficient water volume and would be returned to the channel immediately downstream of the work site. Effective erosion control measures would be inplace at all times during the contract and removed prior to September 15<sup>th</sup> of the same calendar year. Sediment stored behind the erosion control devices would be removed from the channel to the greatest extent possible and disposed of in a site which would not lead to the sediment entering stream channels. Construction activities within the project vicinity would not begin until all necessary temporary erosion controls (*e.g.*, sediment barriers) are in place. If inspection shows that the erosion controls are ineffective, work crews must be mobilized immediately to make repairs, install replacements, or install additional controls as necessary. During culvert replacement, all erosion controls would be inspected daily during periods of precipitation and weekly during the dry season to ensure they are working adequately.

- Springs and perennial wet areas would receive a radial buffer that would prohibit any overstory canopy removal or ground disturbance. This buffer would extend outward from the edge of the riparian vegetation for a distance equal to the EPZ width designated for that unit, or 100 feet (whichever is smaller), in order to protect the ecology of these sites. Additionally, perennial and intermittent springs and seeps, un-vegetated slumps, and other unstable areas would be buffered by leaving a minimum of a 25 foot no-treatment buffer and one row of overstory conifer trees around these sites, to minimize erosion and stabilize soils. Any of these distances may be increased, as necessary, to protect individual sites.
- Landings would be located in approved sites and designed with adequate drainage. Expansions of existing landings or new landings may occur within the NWFP Riparian Reserve, but only outside the EPZ, to facilitate logging systems and would be pre-designated and approved by the Authorized Officer.
- Hydraulic fluid and fuel lines on heavy mechanized equipment would be in proper working condition in order to minimize potential for leakage into streams.
- Refueling of chainsaws and heavy equipment would be done no closer than 150 feet of any stream or wet area.

#### 2.3.7 Sedimentation and Soil Compaction

#### 2.3.7.1 Sedimentation and soil compaction from logging.

- Between October 15 of one calendar year and May 15 of the following calendar year (both days inclusive), no tractor or cable yarding would occur to minimize sedimentation being transported off-site. However, if soil conditions are sufficiently dry during this period, activity may be allowed if approved in writing by the Authorized Officer.
- Where possible, existing skid trails would be used. New skid trails would be predesignated, and spaced at approximately 150 feet intervals, where topography allows, to reduce the amount of compaction within tractor yarded units. Total compaction would not exceed 12% of the unit.
- Yarding tractors would not exceed nine feet in track width and would be equipped with an integral arch and winch systems to minimize soils disturbance and compaction. Skid trails including turning points would be 12 feet width on average.
- Tractor blades would not be used to excavate skid trails and would walk over as much ground litter as possible to reduce compaction and keep soil organics on site.

- Yarding would be done with a cable yarding system which would suspend at least one end of the log clear of the ground during in-haul within the yarding corridor.
- Full suspension would be required if yarding through the EPZ, wet or unstable areas.
- Yarding corridors with more than 50% exposed mineral soils would have one or more of the following applied to minimize surface erosion following harvest that could lead to offsite transport of sediment: installation of waterbars, replacement of displaced soils adjacent to corridors, and mulch or fine slash to cover exposed soil as directed by the Authorized Officer.
- Cable yarding lines would be respooled when changing yarding corridors to protect residual trees and minimize soil disturbance.
- Cable yarding corridors would be minimized and located approximately 150 feet apart to reduce soil compaction and displacement from cable yarding.
- Tractor yarding would be restricted to slopes less than 35% to prevent excessive soil disturbance.
- Within regeneration harvest units, all pre-existing or newly created skid trails would be rehabilitated and blocked. Subsoiling of pre-existing skid trails may be waived by the Authorized Officer in instances where pre-existing skid trails have sufficient vegetative growth to indicate natural de-compaction is in an advanced state or where soils contain over 35 percent rock fragment.
- If skid trails, landings, and temporary routes are needed to complete harvesting the following season, they would be winterized.
- "Winterization" includes installing water-bars, berms, dikes, dams, sediment catchment basins, gravel, native seed and/or mulch as needed to exposed soil prior to fall rains, typically October 15. This process minimizes the amount of erosion that could occur before disturbed soil and new surfaces stabilize.

#### 2.3.7.2 Sedimentation and Soil Compaction from Roads and Landings

- Temporary routes and landings built would be decommissioned after use by rehabilitation, pulling of culverts, and barricading, and planting with conifer seedlings. Additionally, where cut and fill construction was needed on slopes exceeding 30% or greater; fill material would be pulled back into the road surface following sub-soiling.
- All new permanent and reconstructed roads that are not designated for wet weather haul, would have adequate surfacing or would be blocked and stabilized to minimize erosion and road damage. Selected erosion prevention and sediment

control measures would be implemented prior to the wet season (generally Oct 15<sup>th</sup>). Adequate surfacing for dry weather haul and all season light vehicular use would be durable rock of sufficient depth of durable rock to prevent road damage, offsite erosion, or stream sedimentation.

- Native surface roads and roads with inadequate surfacing for wet season haul would be restricted to the dry season, generally between May 15 and October 15 to minimize erosion and road damage. The Authorized Officer may extend the hauling season if dry weather and dry road surface conditions exist. Adequate surfacing for wet season haul would be durable rock of sufficient depth of durable rock to prevent road damage, offsite erosion, or stream sedimentation. Durable rock is defined as clean, hard rock without many fines.
- Log haul on all road types would be suspended at any time during, and immediately following, precipitation events if; saturated road surfaces would result in continuous mud splash or tire slide; surface rutting; fines being pumped through road surfacing from the subgrade, road drainage causes a visible increase in stream turbidities; or road surface conditions would result in water being chronically redirected into tire tracks or away from designed drainage patterns during precipitation events. Treatment of activity fuels and planting would be scheduled to prevent off-site erosion, stream sedimentation, or road damage. These treatments may be suspended or delayed to prevent the occurrence of the above conditions, shown for log haul.
- Drainage features such as water dips, water bars, and/or cross drain culverts would be installed on rocked roads to be used for wet weather haul to minimize the amount of sediment entering stream channels. Similarly on all new permanent roads and existing roads that are to be reconstructed or upgraded water dips, water bars, and/or cross drain culverts would be installed as necessary. Filtering distance depends in part on the slope of the ground below the drain discharge, the road grade and the distance to the next drainage feature up the road. Crossdrain culverts may be added to haul roads as determined by a BLM engineer to help reduce downslope surface erosion and sediment entering streams and draws.
- Between October 15 of one calendar year and May 15 of the following calendar year (both days inclusive), no road construction, reconstruction, routine maintenance, or decommissioning would occur to reduce erosion and stream sedimentation. If conditions are sufficiently dry during this period or resource damage would otherwise occur, activity may be allowed if approved in writing by the Authorized Officer. Post storm road inspection and required maintenance (such as slide removal and cleaning plugged culverts and crossdrains) would occur during the winter season to minimize erosion and potential road damage.
- Blading of ditchlines and the road surfaces would only be done to maintain or restore proper drainage as well as for safety.

- Energy dissipaters (e.g. rock material) and down spouts would be installed as the need is determined by a BLM engineer at new or existing cross-drain and stream culverts, where necessary, to protect road fill slopes that are not adequately protected by natural materials.
- Prior to October 15<sup>th</sup> (before fall rains), newly exposed or disturbed areas associated with road cuts, fill slopes, borrow material and other bare ground disturbed by road construction activities would be mulched.
- Material removed during excavation in addition to slide and waste material removed from existing roads would be disposed of in stable, non-floodplain sites approved by an engineer to prevent sediment entering stream channels.
- Landings would only be rocked, if necessary, to prevent erosion and stream sedimentation.
- Prior to October 15, landings outside of existing road prisms would be rehabilitated (without installing waterbars) and planted with conifers after harvest.
   Step landings would be re-contoured following use. Landings to be used the consecutive operating season would be winterized.

#### 2.3.8 Special Status Species and their Habitats

#### 2.3.8.1 Northern Spotted Owl

- Any of the following PDFs may be waived in a particular year if nesting or reproductive success surveys conducted according to the U.S. Fish and Wildlife Service (USFWS) - endorsed survey guidelines reveal that spotted owls are nonnesting or that no young are present that year. Waivers are valid only until March 1 of the following year. Previously known well established sites/activity centers are assumed occupied unless protocol surveys indicate otherwise.
- Burning would not take place within 0.25 mile of occupied spotted owl sites from March 1 and June 30, or until two weeks after the fledging period) unless substantial smoke would not drift into the nest stand.
- Work activities that produce loud noises above ambient levels will not occur within specified distances (table 2-1) of any owl site during the critical early nesting period, March 1 and June 30, or until two weeks after the fledging period. This seasonal restriction may be waived if protocol surveys have determined the activity center to be not occupied, non-nesting, or failed in their nesting attempt. The distances may be shortened with Level 1 concurrence if significant topographical breaks or blast blankets (or other devices) would muffle sound between the work location and nest sites. The restricted area is calculated as a

radius from a documented site. The Resource Area biologist has the option to extend the restricted season until September 30 during the year of harvest, based on site-specific knowledge (such as a late or 2<sup>nd</sup> nesting attempt).

• Delay any project activities that are located within or adjacent to the nest patch until September 30<sup>th</sup> unless the Resource Area biologist determines that young are not present, or until two weeks after the fledging period. Resource Area biologists will determine "adjacent" distance for each situation. The restricted area is calculated as a radius from a documented site.

**Table 2-1 Mandatory Spotted Owl Restriction Distances** 

Activity	Documented Owl Site
Heavy Equipment (including non- blasting quarry operations)	105 feet
Chain saws	195 feet
Impact pile driver, jackhammer, rock drill	195 feet
Small helicopter or plane	360 feet*
Type 1 or Type 2 helicopter	0.25 mile*
Blasting; 2 lbs of explosive or less	360 feet
Blasting; more than 2 lbs of explosives	1 mile

<sup>\*</sup> If below 1,500 feet above ground level

#### **2.4** Description of the Alternatives

#### 2.4.1 Alternative 1 (No Action)

The No Action Alternative provides a baseline for the comparison of the alternatives and describes the existing condition and the continuing trends within the Planning Area. Under the RMP, the majority of harvest and silvicultural activities are scheduled to occur within the matrix allocation. Selection of this alternative would not meet the purpose and need of the project (described in Chapter 1) of harvesting timber and implementing the Medford RMP at this time. Consideration of this alternative provides the answer to the question of what it would mean for the objectives not to be achieved. Selection of this alternative would not constitute a decision to reallocate these lands to non-commodity uses.

Future harvesting in this area would not be precluded and could be analyzed under a subsequent environmental analysis. Road maintenance and renovation would be dependant on funding and reciprocal road use agreements.

#### **2.4.2** Alternative 2 (Proposed Action)

The Proposed Action emphasizes fully meeting the matrix land allocation objectives of producing a sustainable supply of timber while providing connectivity and both late-successional and early-successional habitat (RMP, p. 38). See the enclosed Wolf Pup Timber Scale Scoping Report Map: Alternative 2.

#### 2.4.2.1 Forest Management

Under Alternative 2, approximately 2,047 acres within 114 units would be harvested. Approximately 528 acres would be harvested by the regeneration (RH), shelterwood cutting (SC), and overstory removal (OR) silvicultural methods. Approximately 1,519 acres within 71 units would be harvested by commercial thinning (CT) methods. See table 2-2 for individual unit treatments.

Modified methods of harvest are proposed on land allocations having additional restrictions for other resource values such as late-successional habitat in connectivity blocks. Commercial thinning would maintain approximately 30% to 50% canopy closure.

#### 2.4.2.2 Timber Yarding

Harvest yarding systems under Alternative 2 include the use of skyline cable, helicopter and tractor yarding. See table 2-2 for individual unit harvesting methods proposed.

#### **2.4.2.3 Road Work**

Proposed road work associated with timber harvesting under Alternative 2 would include constructing, reconstructing, and maintaining roads that access proposed timber treatment units consistent with existing right-of-way agreements. Approximately 3.2 miles of temporary routes and permanent roads would be constructed, and 2.8 miles of road would be reconstructed. All existing and proposed permanent roads used for hauling timber would be maintained.

#### **2.4.2.4 Activity Fuels Treatments**

Activity fuels created in harvest units would be treated by slashing, hand piling, pile burning, underburning and/or lop-and-scatter methods to prepare the site for tree planting, to control competing vegetation, and to reduce the fuel loading. This work is required of the timber sale purchaser as part of the timber sale contract and pertains to material between 1 and 7 inches in diameter. Appropriate treatments depend on the amount of slash created and would be determined by an assessment of the post-activity condition of each unit. Activity units or portions thereof deferred from action alternatives may receive hazardous fuel reduction treatments. Deferred activity unit boundaries may increase or decrease in order to meet hazardous fuel reduction objectives. Increased unit boundaries would not exceed surveyed areas.

Table 2-2. Wolf Pup Project Forest Management Units

Township-	Unit	Acres	est Management Un Critical Habitat	Proposed	Harvest
Range-	Number	Tieres	(CHU) or	Treatment:	System
Section	_ , , , , , , , , , , , , , , , , , , ,		Connectivity/	Alternative 2	3222
			Diversity Block		
			(CDB)		
33-7-9	9-1	13	CHU	RH	cable
	9-2	1	CHU	CT	tractor
	9-4	12	CHU	RH	cable
	9-5	16	CHU	CT	cable
	9-6	14	CHU	CT	cable
33-7-10	10-2	4	CHU	CT	tractor
	10-3	11	CHU	CT	cable
	10-4	4	CHU	RH	cable
	10-5	11	CHU	CT	cable
33-7-11	11-1E	32	CHU	CT	cable
	11-1W	12	CHU	CT	cable
33-7-13	13-1A	45	CHU	CT	cable
	13-1B	4	CHU	CT	tractor
	13-2	33	CHU	CT	cable
	13-3	6	CHU	CT	cable
	13-4	7	CHU	CT	cable
	13-5	9	CHU	CT	cable
22 = 11	13-6	38	CHU	CT	cable
33-7-14	14-1	5	CHU	CT	cable
33-7-15	15-1	6	CDB & CHU	CT	cable
	15-2	55	CDB & CHU	CT	cable
	15-3	10	CDB & CHU	CT	cable
	15-4	15	CDB & CHU	CT	cable
	15-5	1	CDB & CHU	RH	cable
33-7-23	23-1	9	CDB & CHU	CT	cable
	23-2	17	CDB & CHU	CT	cable
	23-3	48	CDB & CHU	CT	cable
	23-4	66	CDB & CHU	CT	cable
	23-5	12	CDB & CHU	CT	cable
33-7-24	24-1	7		RH	cable
33-7-25	25-1	21		SC	cable
33 / 25	25-2	9		RH	cable
	25-3	4		RH	cable
	25-4	21		SC	cable
	25-5	19		RH	cable
	25-5A	21		RH	cable
	25-5B	8		CT	cable
	25-5B 25-6	12		CT	cable
	23-0	12		CI	Cable

Township- Range- Section	Unit Number	Acres	Critical Habitat (CHU) or Connectivity/ Diversity Block (CDB)	Proposed Treatment: Alternative 2	Harvest System
33-7-25	25-7	2		RH	cable
	25-8	19		CT	cable
	25-8A	5		RH	tractor
	25-9	8		CT	cable
33-7-26	26-1	34		RH	cable
	26-2	86		CT	cable
	26-3	7		RH	cable
	26-4	14		CT	cable
33-7-27	27-1	8		CT	cable
	27-3	12		RH	cable
	27-5	13		CT	cable
	27-6	3		RH	tractor
	27-7	19		CT	cable
	27-8	5		SC	cable
	27-9	8		CT	cable
33-7-34	34-1	12		RH	cable
	34-2	7		RH	cable
	34-3	6		RH	tractor
	34-4	5		CT	helicopter
33-7-35	35-1	12		CT	cable
	35-2	94		CT	cable
	35-2A	14		SC	cable
	35-3	8		SC	cable
	35-4	23		CT	tractor
	35-5	23		CT	tractor
33-7-35	35-6	10		CT	cable
	35-7A	44		CT	cable
	35-7	52		CT	tractor
	35-8	8		RH	cable
	35-9			SC	cable
	35-10	6		CT	cable
	35-11	10		CT	helicopter
	35-12	52		CT	cable
	35-13	14		CT	tractor
	35-14	3		CT	tractor
	35-15	2		CT	tractor
33-6-9	6w9-1	16		RH	cable

Township- Range- Section	Unit Number	Acres	Critical Habitat (CHU) or Connectivity/ Diversity Block (CDB)	Proposed Treatment: Alternative 2	Harvest System
33-6-17	17-1	21		CT	helicopter
	17-2	24		CT	helicopter
	17-4	11		RH	helicopter
	17-5	29		RH	helicopter
	17-6	34		CT	helicopter
33-6-19	19-1	31		CT	cable
	19-3	13		CT	cable
	19-4	13		CT	cable
	19-5	37		RH	cable
33-6-20	20-1	16		RH	helicopter
	20-2	1		RH	helicopter
33-6-21	21-1	19		RH	helicopter
33-6-29	29-1	50	CDB	CT	cable
	29-2	34	CDB	RH	helicopter
	29-3	10	CDB	RH	helicopter
	29-4	13	CDB	RH	helicopter
	29-5	3	CDB	RH	helicopter
	29-6	9	CDB	CT	helicopter
	29-7	4	CDB	RH	helicopter
	29-8	3	CDB	CT	helicopter
33-6-31	31-1	58		CT	cable
	31-2	12		SC	cable
	31-3	16		RH	cable
	31-4	63		CT	cable
	31-5	11		RH	cable
	31-5E	12		RH	helicopter
	31-6	47		CT	tractor
	31-7	21		OR-CT	cable
	31-8	9		CT	cable
	31-9	18		CT	cable
	31-10	5		CT	cable
	31-11	12		RH	tractor
34-7-1	1-2	12		CT	tractor
	1-3A	10		CT	cable
	1-3B	8		CT	tractor
	1-4	3		CT	tractor
	1-5	4		CT	tractor

Township- Range- Section	Unit Number	Acres	Critical Habitat (CHU) or Connectivity/ Diversity Block (CDB)	Proposed Treatment: Alternative 2	Harvest System
34-7-3	3-2	11		CT	helicopter
	3-3	39		CT	cable
	3-3	39		CT	cable

Legend

RH = Regeneration Harvest OR = Overstory Removal CT = Commercial Thin

SC = Selected Cut

**Table 2-3. Comparison of Action Alternatives** 

Specific Treatment	Alternative 2
Forest Management Levels	
Units Treated	114
Acres Treated	2,047
Regeneration Harvest	
Units Treated	35
Acres Treated	418
Range in Unit Size (Acres)	1-37
Overstory Removal/Commercial Thin	
Units Treated	1
Acres Treated	21
Shelterwood Cutting	
Units Treated	7
Acres Treated	89
Range in Unit Size (Acres)	5-21
Commercial Thinning	
Units Treated	71
Acres Treated (30-50% canopy)	1,519
Range in Unit Size (Acres)	1-86
Activity Fuel Treatments	
(post-harvest units)	
Units Treated	114
Acres Treated	2,047
Road and Route Construction (Miles)	
Perm roads	2.9
Temp. routes	0.3
Road Re-construction	2.8
Harvest Methods (Acres)	
Tractor	216
Cable	1,560
Helicopter	270

#### Glossary

Matrix - Matrix lands were identified as areas where timber harvesting would occur and comprise approximately 20% of the total 24 million acres of federal lands identified in the Northwest Forest Plan. There are additional management restrictions, such as for riparian reserves that overlap Matrix lands and retaining at least 15% of the watershed in late successional forest patches. The desired condition in Matrix lands on the Medford Bureau of Land Management is a patchwork of different aged forests created by thinning younger forest stands to assure high levels of volume production and regeneration harvesting older forest stands on an approximate 100 year rotation length. The Wolf Pup Timber Sale Project Planning Area is located within this land use allocation.

<u>Riparian Reserves</u> - consists of the stream, the area of the active stream channel, the width of the 100-year floodplain, and the outer edges of the riparian vegetation. Riparian widths vary from one site-potential tree length (at least 100 ft) for seasonal or intermittent streams or up to two site-potential tree lengths (at least 300 ft) for fish bearing streams.

Critical Habitat Unit (CHU) - Critical habitat was designated for the northern spotted owl in February, 1992, and, as defined in the Endangered Species Act (ESA), is "the specific areas within the geographic area occupied by a species…on which are found those physical or biological features essential to the conservation of the species," (USDI 1992). The Planning Area includes CHU #OR-64 in T33S, R7W, Section 7, 9-11, 13-17, 21, 23.

<u>Connectivity/ Diversity Block</u> – Manage to provide ecotypic richness and diversity and to provide for habitat connectivity for old growth dependent and associated species within the northern GFMA, maintain a minimum of 25 percent of each block in late-successional condition, in both long-and short-term. Suitable commercial forestland within blocks would be managed to assure a moderately high level of sustained timber production. Regeneration harvest would be permitted in stands 150 years and older and prescriptions would retain 12-25 trees per acre. The priority prescription in stands less than 150 years would be commercial thinning. Connectivity /Diversity Blocks are present in T32S, R8W, Sections 11, 13, 14, 15, and 23 within the Planning Area.

### Wolf Pup Timber Sale Scoping Report Map: Alternative 2

